Title (en)

STENT POSITIONING

Title (de)

STENTPOSITIONIERUNG

Title (fr)

POSITIONNEMENT DE STENT

Publication

EP 3588433 A1 20200101 (EN)

Application

EP 18290070 A 20180628

Priority

EP 18290070 A 20180628

Abstract (en)

The present invention relates to positioning of stents or other medical interventional devices. In order to provide an improved marker detection suitable for smaller markers, a device (10) for positioning a medical interventional device is provided. The device comprises a data input interface (12), a data processing unit (14) and a data output interface (16). The data input interface is configured to provide at least one image of a region of interest of a subject. In the at least one image, at least a part of a guiding apparatus for a medical interventional device is arranged in the region of interest, which part of the guiding apparatus comprises at least one apparatus position marker visible in the at least one image. Further, in the at least one image, a medical interventional device is arranged at least partly in the region of interest, which medical interventional device comprises device position markers, which are less visible in the image than the at least one apparatus position marker. The data processing unit is configured to detect the at least one apparatus position marker in the at least one image, and to define a proximity region in the at least one image based on the at least one apparatus position marker, and to select the proximity region, to detect the device position markers in the proximity region, and to enhance the device position markers in the at least one image for supporting a positioning of the medical interventional device. The data output interface is configured to provide the at least one image with the enhanced device position markers.

IPC 8 full level

A61B 6/00 (2006.01); **G06T 7/00** (2017.01); **G06T 7/12** (2017.01); **G06T 7/73** (2017.01); A61B 90/00 (2016.01); A61F 2/958 (2013.01); G06T 5/50 (2006.01)

CPC (source: EP US)

A61B 6/469 (2013.01 - EP US); **A61B 6/487** (2013.01 - US); **A61B 6/504** (2013.01 - EP); **A61B 90/39** (2016.02 - EP US); **A61F 2/958** (2013.01 - US); **G06T 7/73** (2016.12 - EP); A61B 2090/3966 (2016.02 - EP US); A61B 2090/3983 (2016.02 - US); A61F 2/958 (2013.01 - EP); G06T 2207/10121 (2013.01 - EP); G06T 2207/30052 (2013.01 - EP); G06T 2207/30204 (2013.01 - EP)

Citation (search report)

- [X] US 2008045827 A1 20080221 - RONGEN PETER M J [NL], et al
- [XA] US 2008267475 A1 20081030 - LENDL MARKUS [DE]
- [XA] US 2014079308 A1 20140320 - CHEN TERRENCE [US], et al
- [A] JP 2012081136 A 20120426 - TOSHIBA CORP, et al
- [A] US 2004260175 A1 20041223 - FLORENT RAOUL [FR], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3588433 A1 20200101; CN 112368740 A 20210212; EP 3815036 A1 20210505; JP 2021529036 A 20211028; US 2021251787 A1 20210819; WO 2020002201 A1 20200102

DOCDB simple family (application)

EP 18290070 A 20180628; CN 201980042479 A 20190624; EP 19731757 A 20190624; EP 2019066619 W 20190624; JP 2020572433 A 20190624; US 201917252748 A 20190624